



# Town of Dagsboro

P.O. Box 420

Dagsboro, DE 19939

PWSID: DE00A0799

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2016

WATER QUALITY REPORT

Artesian Water Company, Dagsboro's water operator, is pleased to provide this Water Quality Report for the year 2015. Please notice that substances such as iron, chloride, and sodium are commonly found in drinking water. They occur naturally at trace levels, and the EPA has deemed that these substances pose no health hazard from consumption in drinking water. This report indicates the concentrations of these and many other substances obtained during analyses performed from January 1, 2016 – December 31, 2016 unless otherwise specified. If you have any questions about this report or the quality of your tap water, please call Cynthia Brought at (302) 732-3777.

### **A Safe Water Source**

The water serving your home comes from the Millsboro Water Department via an interconnection. Although we purchase the water from Millsboro, all water testing is done within Dagsboro's system. Millsboro has three (3) wells, one located in the Manokin aquifer and the other two located in the Columbia aquifer. The Manokin aquifer is confined and protected from the influence of past farming activities and salt water intrusion. The Columbia aquifer is unconfined and is potentially subject to contamination from nutrients and pesticides.

### **Source Water Assessment Plan**

The Division of Public Health, in conjunction with the Department of Natural Resources and Environmental Control, has conducted source water assessments for nearly all community water systems in the state of Delaware. The Source Water Assessment report for Dagsboro can be can be obtained by contacting Cynthia Brought at (302) 732-3777 or by visiting the Source Water Assessment Program website at:

[www.wr.udel.edu/swaphome/swassessments.html](http://www.wr.udel.edu/swaphome/swassessments.html).

### **Expected Substances in Drinking Water**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## ***Definition of Terms***

The following tables contain these terms and abbreviations.

### ***90<sup>th</sup> Percentile***

The ninth highest (out of a total of 10) lead and copper readings. This value is used to determine compliance with the Lead & Copper Rule.

### ***Action Level***

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a public-water system must follow.

### ***Maximum Contaminant Level (MCL)***

The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

### ***Maximum Contaminant Level Goal (MCLG)***

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

### ***Nephelometric Turbidity Unit (NTU)***

A measure of the clarity of the water. Turbidity in excess of 5 NTU is barely noticeable to the average person.

### ***Non-detect (nd)***

Laboratory analyses using the state-approved methods indicate that the contaminant is not present.

### ***Not regulated (n/r)***

No MCL is identified because the substance is unregulated. (It is unregulated because the State of Delaware has deemed that the substance poses no risk to health in any concentration in drinking water.)

### ***Parts per billion (ppb)***

One part of the named substance in a billion parts of the drinking water. Equivalent relationships are one minute in 2,000 years or one penny in \$10,000,000.

### ***Parts per million (ppm)***

One part of the named substance in a million parts of the drinking water. Equivalent relationships are one minute in 2 years or one penny in \$10,000. (1 ppm equals 1,000 ppb.)

### ***picoCuries per liter (pCi/l)***

A measure of radioactivity in drinking water.

### ***Treatment Technique (tt)***

A required process intended to reduce the level of a contaminant in drinking water.

## ***If You Have a Special Health Concern***

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## ***Radon***

Radon is a radioactive gas that is found in nearly all soils. It typically moves up through the ground to the air and into homes through the foundation. Drinking water from a ground water source can also add radon to the home air. The EPA indicates that, compared to radon entering the home through soil, radon entering the home through water will in most cases be a small source of risk. The EPA and the State of Delaware have not yet set standards for monitoring radon in drinking water, although we do expect sampling to become mandatory in the near future. We are keeping a close eye on the situation and will be sure to comply with any new regulations as required.

## ***Lead In Drinking Water***

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

## ***Nitrate***

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

## ***Public Meeting Information***

For the opportunity to ask more questions or participate in decisions that may affect your drinking water quality, a public meeting is held the third Monday of each month, at 6:00 p.m. at the Bethel Center.

## Substances Detected

Substance/Parameter	Violation Yes / No	Unit of Measure	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Annual Range	Major Sources
<b>Inorganic Contaminants</b>							
Nitrate	N	ppm	10	10	0.6	0.6 – 0.6	Erosion of natural deposits. Runoff from fertilizer use. Erosion of natural deposits. Runoff from fertilizer use. Erosion of natural deposits. Erosion of natural deposits.
Fluoride (Field)	N	ppm	2	2	0.32	0.0 – 0.32	
Barium*	N	ppm	2	2	0.1013	0.101-0.101	
Chromium*	N	ppb	100	100	1.7	1.7 – 1.7	
*results from source water system (Millsboro)							
<b>Organic Contaminants</b>							
Xylenes*	N	ppm	10	10	0.0006	0 – 0.0006	Discharge from chemical factories.
*results from source water system (Millsboro)							
<b>Disinfection/Disinfection By-products</b>							
Chlorine, free and total (Field)	N	ppm	4	4	1.06	0.00 – 1.06	Disinfectant used in drinking water industry.
Total Trihalomethanes (TTHM) (2015 Data)	N	ppb	80		5.46	5.46 – 5.46	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)* (2015 Data)	N	ppb	60		2.94	2.94 – 2.94	By-product of drinking water disinfection.
<b>Delaware Secondary Standards</b>							
Iron, (Field)	N	ppm	n/r	0.3	0.33	0.03 – 0.33	<b>Average Levels</b> 0.12
pH, (Field)	N	0-14 scale	n/r		6.91	6.08 – 6.91	6.80
Alkalinity, total	N	ppm	n/r		36.3	36.3 – 36.3	36.3
Chloride	N	ppm	n/r	250	16.1	16.1 – 16.1	16.1
Sodium	N	ppm	n/r		18.7	18.7 – 18.7	18.7
Sulfate	N	ppm	n/r	250	2.9	2.9 – 2.9	2.9
<b>Lead &amp; Copper</b>							
	Violation Yes / No	Unit of Measure	Action Level	Ideal Goal (MCLG)	90 <sup>th</sup> Percentile		Major Sources
90th Percentile Lead (2015 Data)	N	ppb	15	0	3.8		Corrosion of household plumbing systems, erosion of natural deposits.
Number of Sites Exceeding Lead Action Level				0			
90th Percentile Copper (2015 Data)	N	ppm	1.3	1.3	0.248		Corrosion of household plumbing systems, erosion of natural deposits.
Number of Sites Exceeding Copper Action Level				0			

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.